

**CROP YIELD PREDICTION USING
RECURRENT NEURAL NETWORKS**

A PROJECT REPORT

Submitted by

SRI RAM M

SUBASH A

VASANT SURAJ S V

VIBIN ANANDH R M

in partial fulfilment for the award of the degree

of

BACHELOR OF TECHNOLOGY

IN

INFORMATION TECHNOLOGY



PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY,

(An Autonomous Institution Affiliated to Anna University, Chennai)

DINDIGUL - 624622

MAY 2024

ABSTRACT

Agriculture is first and foremost factor which is important for survival. The Indian economy, dominantly, depends upon farming along with agro-industry things. The soil ingredients (like Nitrogen, Phosphorous, Potassium), crop rotation, soil clamminess, atmospheric and surface temperature, precipitation, etc, play an efficient role in cultivation.

Deep Learning has emerged as a potential tool for crop yield prediction. Recurrent Neural Network that consists of multiple hidden layers between the input and output layers. Recurrent Neural Networks (Many to One RNNs). Using Recurrent Neural Networks many inputs are given in input layers and generate output in hidden layer to produce single output. The performance parameter accuracy and scalability to be improved.

Deep learning based model is proposed to predict crops based on soil ingredients needed with their expenses separately. We have also implemented the fertilizer selection based on predicted crop in the model. It provides a better accuracy than the existing model. It analyzes the given data and helps the farmers in predicting a crop which in return help in gaining profits.